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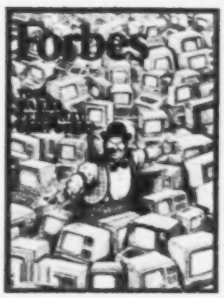


111 Cover Story: Ready or not, here comes the future.

31 Taxes: It's a fine line between business and pleasure where the new tax credit is concerned.

33 Puritan Fashions: Carl Rosen bet his company on the Klein label. Now, will Wall Street bet on him?

31 Taxes.
Productivity, American Style
Can you now get the investment tax credit for the new Ferrari you bought last year? As it turns out, you can.

32 Companies:
Gannett Co.
Why has Allen Neuharth gone against his own longtime philosophy?

33 Companies:
Puritan Fashions Corp.
Even with Gloria Swanson, Calvin Klein and Brooke Shields on the payroll, Puritan's chairman could do with a new image.

35 Metals:
The Tin Bubble
Someone is manipulating the tin market with a strategy called "backwardation." That someone may be left holding a big bag when the dust settles.

36 Companies:
Wang Laboratories
An Wang is clearly an innovator. Facing the newly unshackled IBM, he will need all his skills—and more.

37 Companies:
Perkin-Elmer
Speed-shifting in Norwalk.

42 Companies:
Jacoby & Meyers
They may unsettle parts of the legal establishment, but Ray Kroc would understand perfectly.

43 Exports:
The "Invisible" Industries
They're out to get a fair shake at last.

46 The Market:
Is This The Black Box?
If it isn't, it's got a lot of people scared.

51 The Money Men:
Charles Coulter
With $870 million in venture capital money out there, is it time to haul in the sails?

54 Companies:
Keystone International
Butterflies aren't free.

58 Companies:
Eli Lilly & Co.
"Investors underestimate the potential of our new drugs," says CEO Wood. Do they?

63 Companies:
Federated Investors
Is there life after 40? For Glen Johnson, there is. After running a weekly newspaper and selling savings bonds, he came up with a better mousetrap—a spectacular one.

66 The Numbers Game:
Debt By Any Other Name
The Treasury tries again to decide what is debt and what is equity.

72 Taxing Matters:
A Classic Solution
Rising costs and falling revenue add up to panic—and increased taxes.

76 Soft Drinks:
Small Is Hardly Beautiful
From root beer in Biloxi to espresso soda in Manhattan, here are three strategies for survival.

80 Companies:
Sanyo Electric
What is a Japanese-run plant doing in Tierra del Fuego? It's pursuing a sophisticated policy that every manager in America should be aware of.

89 Companies:
Hyundai
Never heard of this Korean colossus? Take a look around the world.

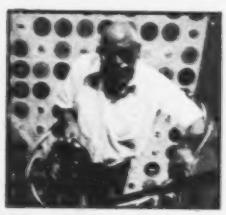
90 As I See It:
Marvin Robinson
"Man is in outer space to stay."

97 The Up-And-Comers:
Wham-O Mfg. Co.
Can the people who brought you Hula Hoops and Frisbees do it again?

102 The Up-And-Comers:
Goody Products
Almost too good, too long.

108 Banking:
Go South, Young Man
Getting ready in Florida.

66 *The Numbers Game: Huge risks remain in the debt-to-equity argument.*



97 *Wham-O Mfg. Co.: When new products like "instant fish" fail, revive the Hula Hoop.*

120 *Profiles: How to drive a hard bargain—and a Rolls-Royce.*

166 *The Streetwalker: This beached whale may be a buy—if you're an optimist.*

111 Cover Story:
An Industry Aborning
If the words "user friendly" still scare you to death, remember the only thing to fear is fear itself. Prices are falling, users are increasing, and personal computers are well on the way.

120 Profiles:
Dr. Chester Karrass
Who is Chet Karrass and why is he making all that money? Put simply, he's about the nearest thing to an industrial Dr. Spock.

124 The Media:
Copyright Infringement
The question is no longer proving it. It's what you do about it.

147 Personal Affairs:
How to take money out of an IRA; boardrooms break the beauty barrier; and what delights await you on Manhattan's Lower East Side.

Faces Behind The Figures

154 Sumner Redstone,
Northeast Theatre Corp.
154 Arno Penzias,
Bell Laboratories
155 James Emmett Evans,
Independent citrus grower
155 Claire Nichtern,
Warner Communications, Inc.
155 William Andrews,
Scovill Inc.
158 Betsy Barlow and Pamela Tice,
Central Park Conservancy
158 Frank Mankiewicz,
National Public Radio
160 William Sovey,
AMF Inc.

166 The Streetwalker:
Inco, U.S. Home, Airline Stocks
A gleam in the ashes? Pride goeth before a fall; somebody has to win the free-for-all in the air—or do they?

170 Statistical Spotlight:
The "Real" Market
After nine years of steady inflation, it's not a pretty story.

Money And Investments

25
What's Ahead For Business

26
The Forbes Index

163
The Forbes/ Wilshire 5000 Review

Columnists

173
Ben Weberman
174
Heinz H. Biel
176
Ann C. Brown
178
David Dreman
180
Stanley W. Angrist
182
Srully Blotnick
184
John Train
185
Ashby Bladen

Departments

6
Side Lines
8
Trends
12
Follow-Through
16
Readers Say
19
Fact and Comment
22
Other Comments
186
Editorial Index
187
Flashbacks
188
Thoughts

Photos:
8, Doug Wilson/Black Star; 14, Wide World; 20, David McGough/DMI; 52, 54, 58, 89, 92, 154 top, Bill Kelly; 55, Leroy Woodson Jr.; 56, 51, 154 bottom, Steve Liss/Liaison; 42, 152 bottom, Lawrence Barns; 45, Bart Bartholomew/Black Star; 54, John Grossman; 58, Bob Godfrey/Black Star; 76, 155 bottom, Judith Gefter; 77, 78, Theo Westenberger/Liaison; 97, James Caccavo; 102, James Pozarik/Liaison; 112 top, 122, Ray Fisher; 112 bottom, Shelley Katz; 118, 155 top, 158 top, Fred DeVan; 119 top, Les Wollam; 119 bottom, Tom Lea; 150, Andy Levin/Black Star; 156, Barry Rabinowitz; 158, Eric Poggenpohl; 160, Kim Steele
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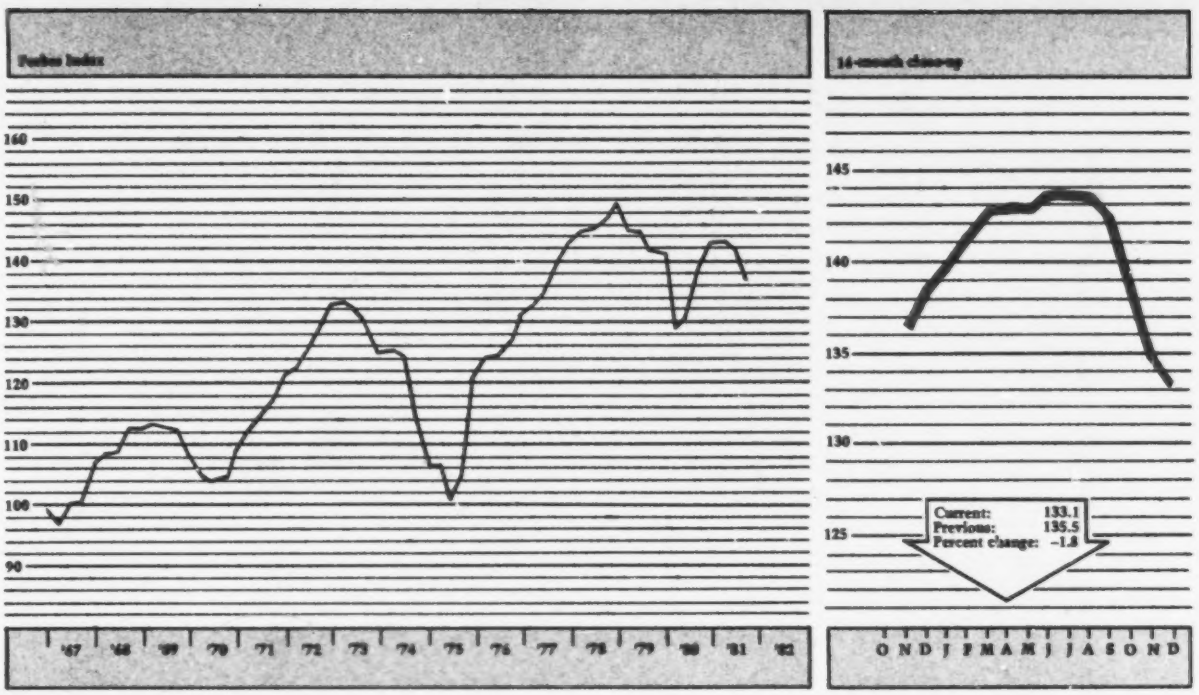
The Forbes Index



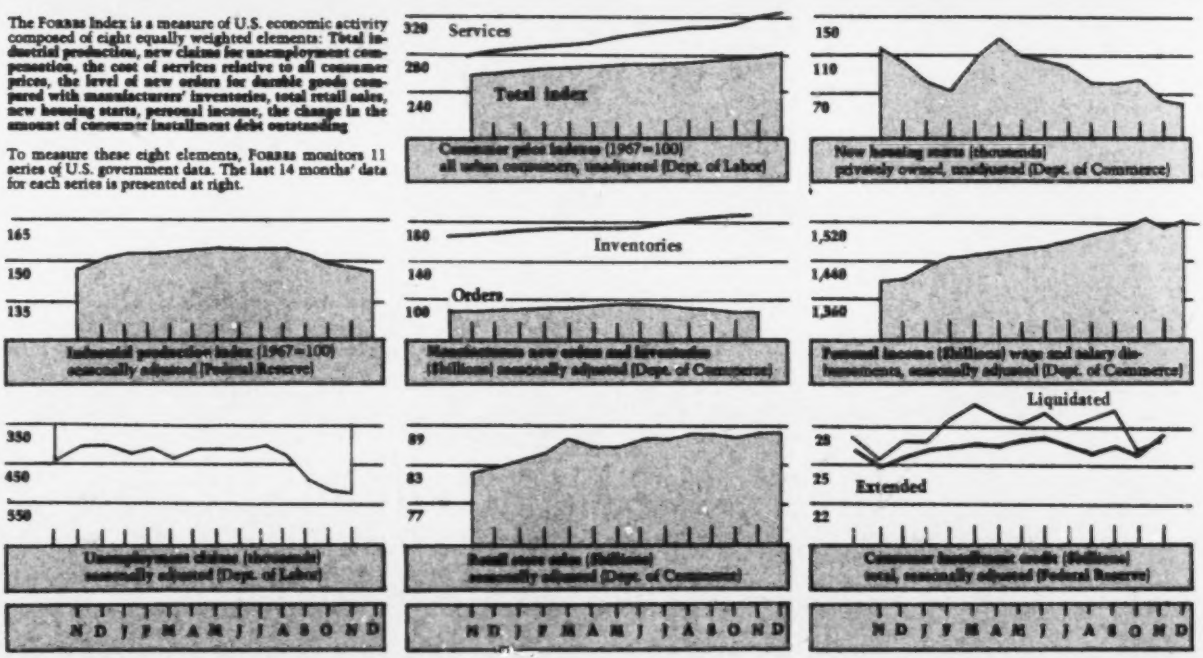
Bottom fishing. The Forbes Index declined once again, but the downswing was anything but dramatic. This may indicate that the recession is nearing its nadir. Industrial production fell by 2.2%, while housing starts were off another 3.3%. Offsetting this doom and gloom, there was some mildly good news about the important retail sales category, which climbed 0.4% in December.

Analysts, however, attribute the rise to price discounts, which also reduced inventories. Personal income posted a small gain, too, moving up 0.5%. So the recession remains alive and well. The next few weeks will be crucial in determining its severity and length.

The Forbes Index Components

The FORBES Index is a measure of U.S. economic activity composed of eight equally weighted elements: **Total industrial production, new claims for unemployment compensation, the cost of services relative to all consumer prices, the level of new orders for durable goods compared with manufacturers' inventories, total retail sales, new housing starts, personal income, the change in the amount of consumer installment debt outstanding.**

To measure these eight elements, FORBES monitors 11 series of U.S. government data. The last 14 months' data for each series is presented at right.



Like cars in the Twenties, radio in the Thirties and TV in the Fifties, personal computers are a giant business that is fast becoming mass.

Tomorrow has arrived

By Kathleen K. Wiegner

SNAPSHOTS FROM THE big picture: The kid in Los Angeles is already outgrowing his $895 TRS-80 personal computer. He tells the ComputerLand store manager that he intends to trade up to a larger system—"with disks, because cassettes are too slow"—that will cost around $2,500. "But I could use it for a long time because the system is easily expandable," adds the kid. The dealer smiles. The kid is just 14.

Across the country in Cos Cob, Conn., an audience of some 60 parents—potential computer buyers all—listen to the junior high school math teacher explain the personal system he has put together from an Apple II (cost: $1,530), a green-screen monitor ($219), a disk drive ($640) and a printer ($645).

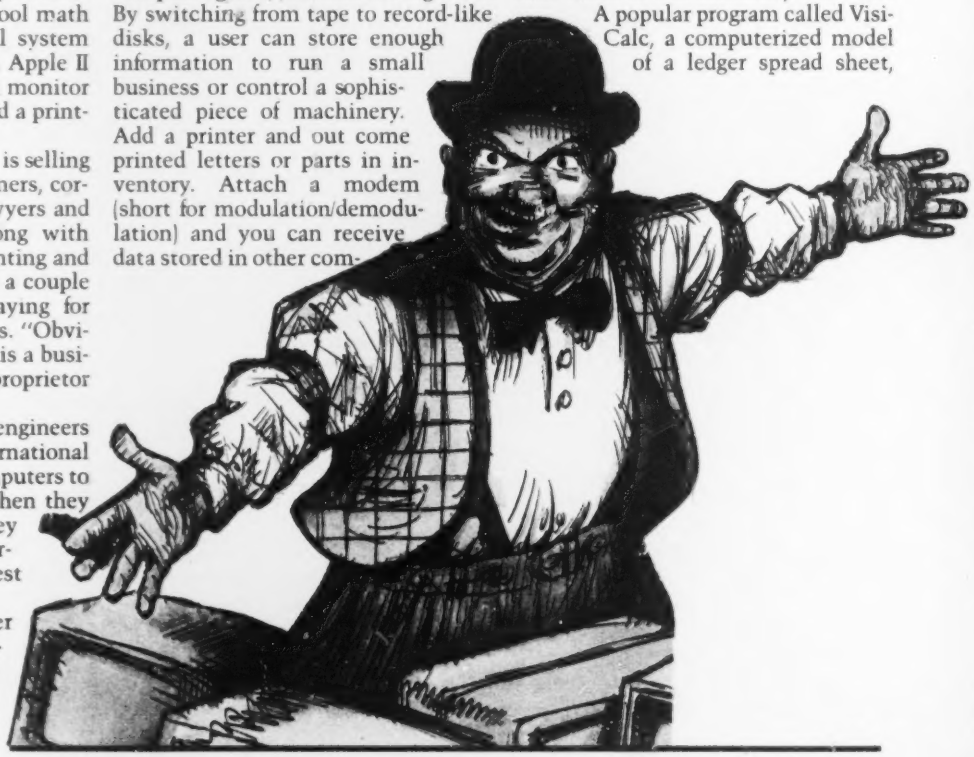
In Dallas, the CompuShop is selling Apples to small business owners, corporate middle managers, lawyers and financial analysts who, along with software programs for accounting and inventory-keeping, purchase a couple of video-game packages, paying for the lot with company checks. "Obviously the rationale is that it is a business tool," observes the proprietor sagely. And so it is.

In Anaheim, Calif., savvy engineers from nearby Rockwell International shop around for personal computers to help them in their work. When they find one that they like, they put in a requisition to the purchasing department for "test equipment."

The personal computer business, in short, is booming. Last year there were 1 million units sold, which, when you include peripheral equipment and programs sold along with the computers, brought total revenues to $2 billion—a new industry already as large as the dog-food business.

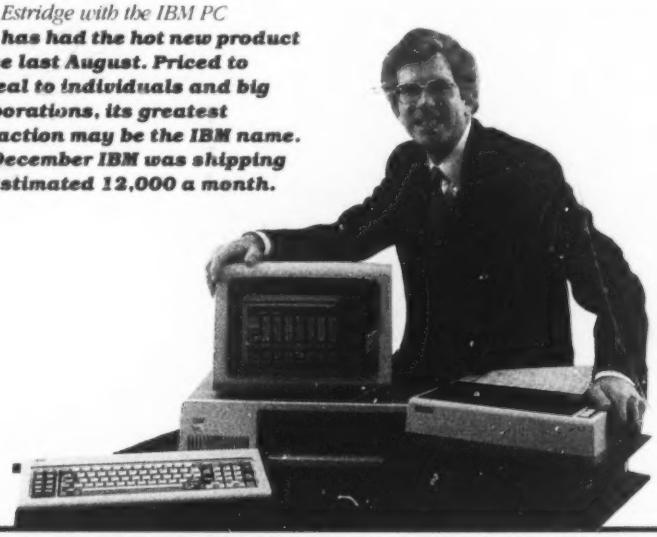
If you don't already know, a personal computer is simply this: At the heart of computing power is a tiny microprocessor, which sells for around $3 to $5. Wrapped around the microprocessor chip are a handful of other miniature components and a keyboard for entering information. Add a monitor (or your own TV set) and a way to load programs into the computer (a cheap cassette tape recorder will do) and you are in the computer game, just like the big folks. By switching from tape to record-like disks, a user can store enough information to run a small business or control a sophisticated piece of machinery. Add a printer and out come printed letters or parts in inventory. Attach a modem (short for modulation/demodulation) and you can receive data stored in other computers over a phone line. Finally, there are the thousands of software programs (which tell the computer whether it is processing a letter or playing Space Invaders) for building a library of computer uses. Things like home-budgeting or managing a stock portfolio.

Retailers have not seen a market like personal computers since the great days of the automobile. The markups run well over 30%, and the computer itself is only the start of the sale. There are the options, sold à la carte—floppy disk drives, video monitors, high-speed serial interface cards. And there is the necessary software. A popular program called VisiCalc, a computerized model of a ledger spread sheet,



Don Estridge with the IBM PC

IBM has had the hot new product since last August. Priced to appeal to individuals and big corporations, its greatest attraction may be the IBM name. By December IBM was shipping an estimated 12,000 a month.



Retailers have not seen a market like personal computers since the great days of the automobile. Dealer markups run well over 30%, and the computer itself is only the start of the sale.

costs around $200. It's like selling a film of the Super Bowl and a TV set on which to watch it at the same time.

The projections are simply breathtaking: By 1985, reckon analysts of the new industry, personal computers—machines selling for less than $10,000 that are designed to be used primarily by one person—will be an $8 billion to $10 billion market.

The existing distribution system—1,500 computer stores, led by the 655 Radio Shacks and the 220 ComputerLands—couldn't begin to handle that kind of volume. But the nation's larger retailers are aware of the opportunities. R.H. Macy has begun to sell Atari and TI computers, and in the spring will begin selling Apple, Xerox and Osborne. Carter Hawley Hale's Weinstock stores and the Dayton-Hudson chain are carrying personal computers, and Sears business stores will handle the new IBM product. Independent sales outfits (akin to systems houses that handle larger computers) package personal computers with appropriate software and sell them to doctors, lawyers, accountants and even farmers.

Alas, a boom is not healthy for everyone in the business. As autos boomed into a mass market, the Peerless, the Huppmobile, the Pierce-Arrow, Auburn-Cord and many other early starters fell by the wayside. There is something about growth that leads to concentration. As the original Henry Ford and GM's legendary Alfred P. Sloan demonstrated almost 60 years ago, nothing is more uncertain than the early days of a giant market.

This time the pioneers are Cupertino, Calif.'s Apple Computer Inc., where two entrepreneurs brought out the first personal computer in 1976; Tandy Corp., owners of Radio Shack; Commodore International; the Atari division of Warner Communications Inc. These bold beginners had the field pretty much to themselves while the market remained largely one of the small businessmen, professionals and video-game players. Some of the computers sold for as little as $500 and were thought to be beneath the dignity of the data-processing giants.

But the market was destined not to remain small. In an age of soaring costs for raw materials and labor, the computer remains one of the last means of reducing costs and increasing productivity. Using manual meth-

W. Dal Berry with Xerox 820

Xerox has taken a safe route, offering a "me, too" Apple. Any excitement was quickly drowned in IBM's announcement. But Xerox can give customers a plan for linking the 820 with its other office products.

ods, it would cost a business $233,000 a year to match what a $15,000 computer can do. And not only does a computer save money: It greatly increases the range of what a single individual can do unaided. The market therefore would not forever be limited to small-time users.

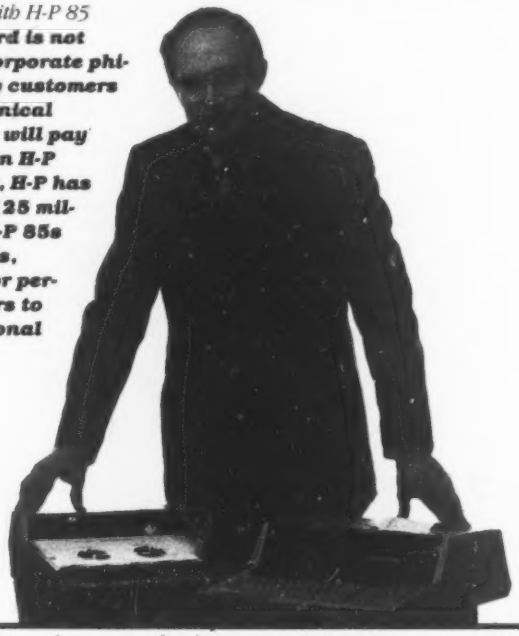
Last August mighty IBM introduced its first personal computer. Xerox entered the market last year as well. "Our move was partly defensive," acknowledges W. Dal Berry, vice president, office products business unit. "We were beginning to see Apples and Tandys used by our major accounts." The minicomputer makers Hewlett-Packard, Digital Equipment and Data General jumped into the fray. Texas Instruments regrouped after an initial marketing mistake with its personal computer and is back in the marketplace; Nippon Electric is the most advanced Japanese entrant in personal computers, but only the first of an anticipated phalanx of competitors from Japan. Zenith Radio, which makes computer terminals, brought out its own personal computer in 1979.

Competition is expensive. Advertising budgets are up, prices for hardware are being trimmed here and there. The cost of developing new and better products is rising. Tandy spent an estimated $150,000 developing its first personal computer in 1977; for its latest, the TRS-80 Model 16 announced last month, the development cost was not thousands but millions.

At the beginning of 1982 the personal computer market appeared to be dividing. On one hand, the high end—targeting the large corporations where banks of the little machines might be linked to the firm's mainframe computer system. On the other hand, the low end, the still emerging personal and home market. Companies were choosing their turf and readying for a battle that would undoubtedly change the current rankings in the market.

The industry is still so new that estimates of market share depend somewhat on who is doing the estimating. The Dallas research firm Future Computing counts orders as well

Richard Moore with H-P 85
Hewlett-Packard is not changing its corporate philosophy: Sell to customers with some technical know-how who will pay a bit more for an H-P product. So far, H-P has sold around $125 million worth of H-P 85s and peripherals, good enough for personal computers to be given divisional status.



as computers shipped to compile the following line-up for 1981 sales and installed bases:

- Apple, an entrepreneurial company that had $335 million revenues, $39.4 million net income last year, 180,000 machines sold in 1981, installed base of 350,000.
- Tandy Corp., a retailing company of $1.7 billion revenues and $170 million net income, 170,000 sold last year, installed base of 400,000.
- Commodore International Ltd., a King of Prussia, Penna. company of $187 million sales, $24.9 million income, 150,000 sold last year, 300,000 installed base.
- IBM, the world leader in data processing, $26 billion revenues, $3.5 billion net income, sold 40,000 machines from August through December 1981.
- Texas Instruments, the big semiconductor manufacturer, $4 billion revenues, $212 million net income, 30,000 unit sales in 1981, 45,000 machines in the field.
- Atari, a division of Warner Communications, estimated personal computer revenues $10 million, 30,000 sold last year, 40,000 computers in the field.
- Hewlett-Packard, the leading maker of scientific instruments, $3.6 billion revenues, $312 million net income, 26,000 units sold in 1981, 36,000 in the field.
- Others—including such prominent names as Digital Equipment, Xerox, Data General, Zenith, Nippon Electric—sold among them 129,000 machines in 1981, with a total of some 180,000 computers in the field.

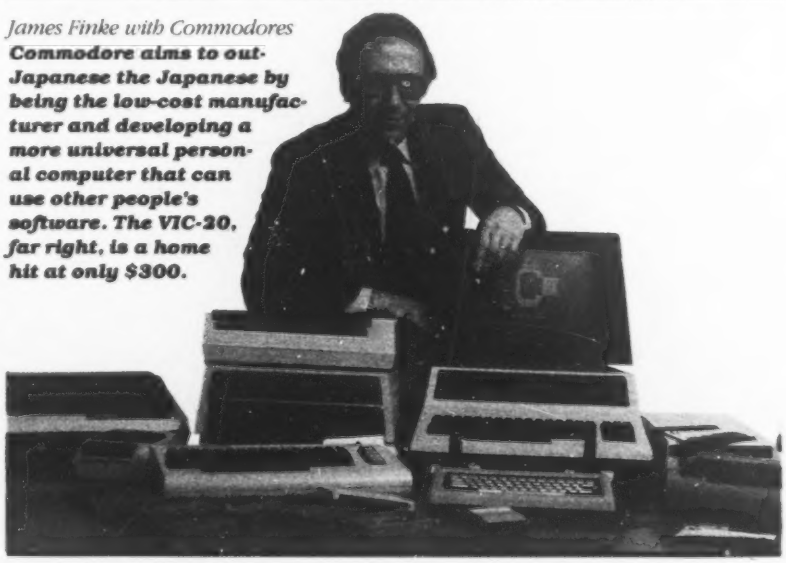
Who among the above will be on top in, say, 1985? Who among them may not even survive, at least as an independent company? A lot depends on how each company approaches the developing markets. If this were the 1960s era of mainframe computers, the pioneers' large bases would give them a hard-to-challenge lead. But installed base is less of an advantage in personal computers than it was in mainframes. Then a customer had to transform its entire data-processing. With the personal machine, an individual customer may trade in or trade up to the latest hot product—as with autos in the golden days of Detroit—since his overall investment is considerably less.

And that is but one reason why the company that has all other personal computer makers frightened is IBM. "The marketplace is in such turmoil that customers go with the hottest, newest, most powerful product," says David Crockett, senior vice president of the Cupertino, Calif. market research firm Dataquest.

IBM is gearing its marketing strategy to entice everyone from chief executive to adolescent to "own a little IBM." To get into the market quickly and in a way calculated to give it the broadest possible acceptance, the big company violated many of the rules that were always said to be graven in Armonk stone. In big computers IBM develops its own software, for instance. But IBM designed its personal computer to run the most popular independently produced programs—Easy Writer by Information Unlimited Software, VisiCalc by Personal Software. Another rule: IBM makes its own parts. Not so in personal computers. "One critical decision was not to manufacture some of the hardware ourselves," says P. Don Estridge, who is in charge of developing and marketing the IBM PC. "We wanted to introduce a machine that customers and hardware and software vendors used to working with Apple and Tandy were familiar with. Unfamiliar technology would have taken time for people to learn."

Most ominous perhaps for IBM's competitors is how quick and entrepreneurial it was in bringing out the PC. It is selling through retail stores—ComputerLand and Sears special outlets—as well as through the com-

James Finke with Commodores
Commodore aims to out-Japanese the Japanese by being the low-cost manufacturer and developing a more universal personal computer that can use other people's software. The VIC-20, far right, is a home hit at only $300.



pany's vaunted direct sales force (for the larger corporate accounts). Analysts' estimates are that IBM will sell at least 100,000 of the $1,565 to $6,300 PCs this year and The Gartner Group projects that by 1985 the company will have 14% of the market.

Still, even the New York Yankees and Dallas Cowboys can be beaten, and competitors are not wilting in fear. Xerox is aiming for the same office automation market as IBM. Vice President W. Dal Berry views Xerox' 820 personal computer as another work station, along with electronic typewriters and word processors that, connected together, can share storage and central data bases. But Xerox has also set up a separate sales organization to sell to small businessmen. While Xerox' 820, which came out last June, is no breakthrough in technology, the company can back it up with a vast sales and service organization, an overall office automation strategy and the leverage it gets from divisions that make disk drives and printers.

Minicomputer makers Digital Equipment and Data General are still developing strategies. Data General was late with its business oriented Enterprise system and with the software to support it. Digital has, in the words of an analyst, "announced its intention to announce" by offering owners of one of its terminals the equipment to convert it into a computer. Further along, Hewlett-Packard has adopted a more narrow marketing strategy. Marketing Manager Dean Clainos sees the fastest growth between now and 1985 in office, small business and scientific uses. H-P, with its strong instruments business, is already solid in the scientific market and is aiming at what H-P calls the analytical professional market—*i.e.*, financial analysts, planners or engineers. H-P, says Clainos, is not marketing to small business at present because often these businessmen want a low price and then require lots of hand-holding afterwards. "Scientists, on the other hand, see computers as tools," says Clainos.

Whatever happened to the home market, which both Apple and Tandy talked about back in 1977? The problem with the home market is that the computer has been a solution looking for a problem. Suggestions that people use a computer to balance their checkbooks or file recipes are akin to offering a V-8 automobile for a trip to the corner mailbox. The public understandably was not interested. Except for games.

The video games have been the door-opener for Atari, and it continues to place its bets on the home market—only $200 million in sales last year but potentially a market of over 80 million households. Atari is hoping that by bringing down the price of its computer (it recently dropped its lowest model to $399) and spending millions on developing the right software, it can turn its videogame computers into the computer of choice for wide home use.

Another company banking on games to lead ultimately to a broad consumer market is Commodore, the current number three contender. "Those games will move computer literacy into the home," says Commodore President H.E. James Finke. "A game computer can become a computer for educational programs and also for accessing data bases."

Commodore's PET computer was an early success in the U.S., but while Commodore did a first-class selling job in Europe—where it could charge more—the company left U.S. dealers without sufficient product, parts or service. Now, with 60% of sales outside the U.S., Commodore is moving back home.

"We're the 1955 Volkswagen," Finke declares, "the low-cost, reliable product coming from abroad." At the Winter Consumer Electronics Show in Las Vegas last month, Commodore dazzled the crowd with a $595 computer that appears to match the performance of a $1,650 Apple II. Later this year Commodore plans to offer a plug-in circuit that will enable this Commodore-64 to run software designed for other personal computers.

Because it manufactures its own microprocessor (which it also sells to Apple and Atari) and has other semiconductor capability, Commodore has low manufacturing costs.

But the true home computer will require special software written for such uses as tax-planning or learning a foreign language. To date, most programs are written for business applications. With this in mind, Texas Instruments is encouraging software independents to write home-oriented programs for the machine it attempted to sell to the home market in 1979. That earlier attempt failed because the company had little software, charged too high a price and did not distribute the 99/4 properly. Now it is back knocking at the door with the 99/4A, at a price reduced from $650 to $525 and a redesigned keyboard.

Tandy has just brought out its new computer, a powerful machine aimed at the upper-end professional and business market that is priced competitively with IBM's personal computer. The announcement represents a clear market choice for the Ft. Worth, Tex.-based company, whose traditional buyer has been in the small business and computer-hobbyist range. "Now Radio Shack has a computer to sell to go against IBM," says one analyst. To further the drive into the office market, Tandy's new machines can be linked using the Archnet network developed by Tandy and San Antonio-based Datapoint.

Whatever happened to the home market? The computer has been a solution looking for a problem. Suggesting that people use a computer to balance their checkbooks is like offering a V-8 car for a trip to the mailbox.

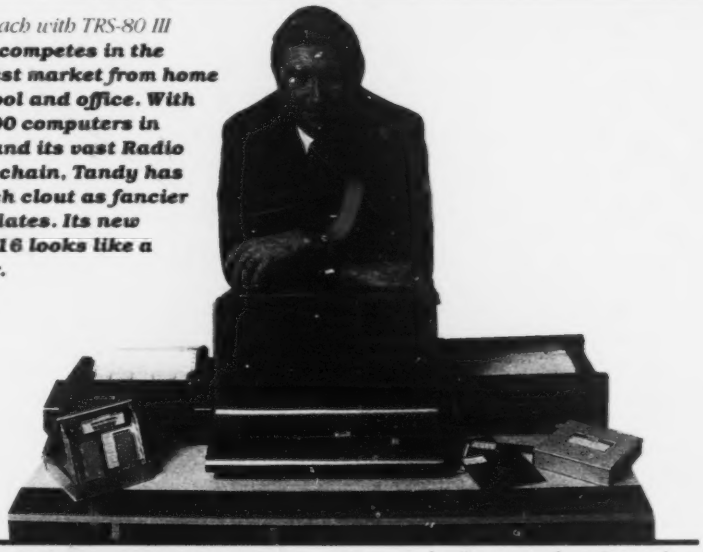
Jon Shirley, Tandy's vice president for computer marketing, believes the company's strengths lie in its broad product line—it sells everything from a $200 hand-held computer to an over-$10,000 business system—and its 6,000-store Radio Shack chain, 655 of which specialize in computers. Perhaps the company's greatest strength lies in the fact that its executives, from President John Roach down, keep saying, "First, we're retailers." If at some future time a competing manufacturer has a hot new product but needs distribution, would Tandy sell that competitor's product through its Radio Shack chain? You bet it would, Shirley declares.

Which brings the question of the moment to the market leader, Apple Computer, the originator of the personal computer and the company that had the most instantly recognizable trademark in the field—before IBM came in.

Apple is clearly under pressure. It has strength—its Apple II model is a honey of a product, the personal computer with the largest base of available software. The Apple II has sold over 350,000 units to date, and still sells an estimated 15,000 a month, but is several years old. And Apple's management, trying to follow it up, rushed out the Apple III in May of 1980 and immediately ran into manufacturing and technical problems. The III was withdrawn and reintroduced last November at a lower price and with more software, but to date only around 10,000 of these machines have been sold.

Can Apple hold its old lead, now that IBM is in the field? "I get really

John Roach with TRS-80 III
Tandy competes in the broadest market from home to school and office. With 400,000 computers in place and its vast Radio Shack chain, Tandy has as much clout as fancier nameplates. Its new Model 16 looks like a winner.



aggravated when people ask me how we're going to respond to IBM." President A.C. (Mike) Markkula Jr. is clearly irked by the suggestion that IBM is invincible. "IBM was responding to us! There's no substitute for time. You can't just throw corporate resources at a problem and get immediate results. With our installed base and vast software for Apple II, we're at the top."

Staying there will not be easy, though. Apple is a year late in bringing out its new, more powerful computer, code-named Lisa and reportedly developed at a cost of $30 million. Markkula explains that Lisa—which analysts predict will cost over $5,000—will use its extra power not so much to do more calculations as to make it easier for users to operate.

. . . acquisition by one of data processing's big-timers not presently in personal computers. Regardless, Apple remains a monument to what daring and brilliance can still accomplish within the American business system. Independent or as part of something bigger, Apple has forced the big boys to open the circle.

That is an intelligent approach to a market where even potential business users remain a little afraid of the computer. A "friendly" machine could keep Apple among the front runners in a business that it and Tandy have dominated until recently. But the small company still will have a hard road to travel. It lacks, of course, the financial and marketing muscle of the larger companies.

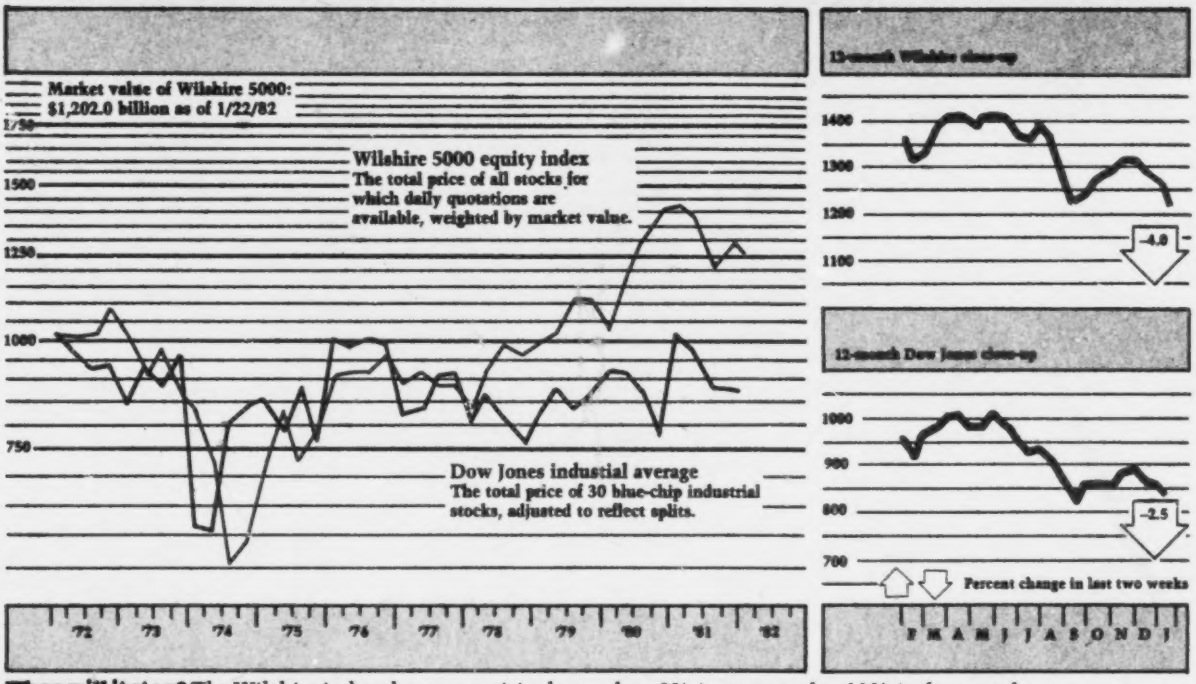
Apple's essential problem is that it could find itself squeezed from below by Atari, Commodore and Tandy and from above by the big battalions of IBM, Digital, Xerox, H-P and others.

Would it seek help—a joint venture? A merger? Markkula says, "We want to be in business ten years from now." As an independent company? Markkula pauses, smiles and answers "yes." Nevertheless, industry observers are already talking up Apple as a candidate for acquisition by one of the data-processing big-timers not presently in the personal computer field. Regardless, Apple remains a monument to what daring and brillance can still accomplish within the American business system. Independent or as part of something bigger, Apple has forced the big boys to open the circle and let it in.

The personal computer field. It seems odd still to speak of a five-year-old industry as a giant, as bringing something profound to the lives of all. But that is the feeling one gets about personal computers, which represent nothing less than the democratization of computing power. You may not yet know what you could use one of these products for, but you feel sure that, sooner or later, you are going to have to learn. ■

Mike Markkula with Apple III
Apple is the industry legend with its Apple II, and offers more software than the competition. A favorite among professionals and small businesses, Apple hopes to be a winner in the office with a new product due this year.

The Forbes/Wilshire 5000 Review



When will it stop? The Wilshire index shows securities lost over $71 billion in market value over the last four weeks. Still, the news isn't all bad. Less than $7 billion in market value was wiped out in the latest two-week period. That means the pace of selling has slowed, at least temporarily.

The exodus from Wall Street has been prompted by doubts about interest rates, inflation, the state of the economy and the budget deficit. The blue chip Dow stocks show the most resistance to investor jitters: The Dow fell 2.5% in two weeks, whereas the Wilshire lost 4%. But the American Stock Exchange—with its high exposure to energy stocks—was particularly hard hit. It lost 8% in two weeks, 11% in four weeks.

These numbers don't exactly encourage you to stand up and cheer over recent market performance. Nor does much of the gloomy financial news that now fills the papers and air waves. Still, this ongoing shakeout has its positive elements.

Two major constraints on profitability—energy and labor costs—are in the process of adjusting to the reality of market forces. Corporate America is also slashing away at fat and inefficiencies. Even though Wall Street and the economy may have yet to touch the very bottom, the eventual rise back to the top could be rather dramatic.

Close-up On The Equity Markets

Performance of five leading indexes

Percent change	Wilshire 5000	Dow Jones Industrials	NYSE Composite	ASE Market Value Index	NASDAQ Composite
In last 4 weeks	-6.4	-3.2	-6.1	-11.0	-5.8
In last 52 weeks	-10.7	-10.1	-10.7	-16.1	-8.7

Stock performance based on five key investor yardsticks

Percent change	Volatility*		P/E multiple		Dividend yield		Growth profile†		Share price	
	high	low	over 25	under 5	over 7.5%	none	high	low	over $40	under $4
In last 4 weeks	-6.4	-1.2	-5.6	-1.0	-4.2	-1.7	-5.3	-1.8	-6.9	-0.1
In last 52 weeks	-2.8	10.0	-16.4	2.9	6.8	2.7	-3.0	4.4	-6.0	9.3

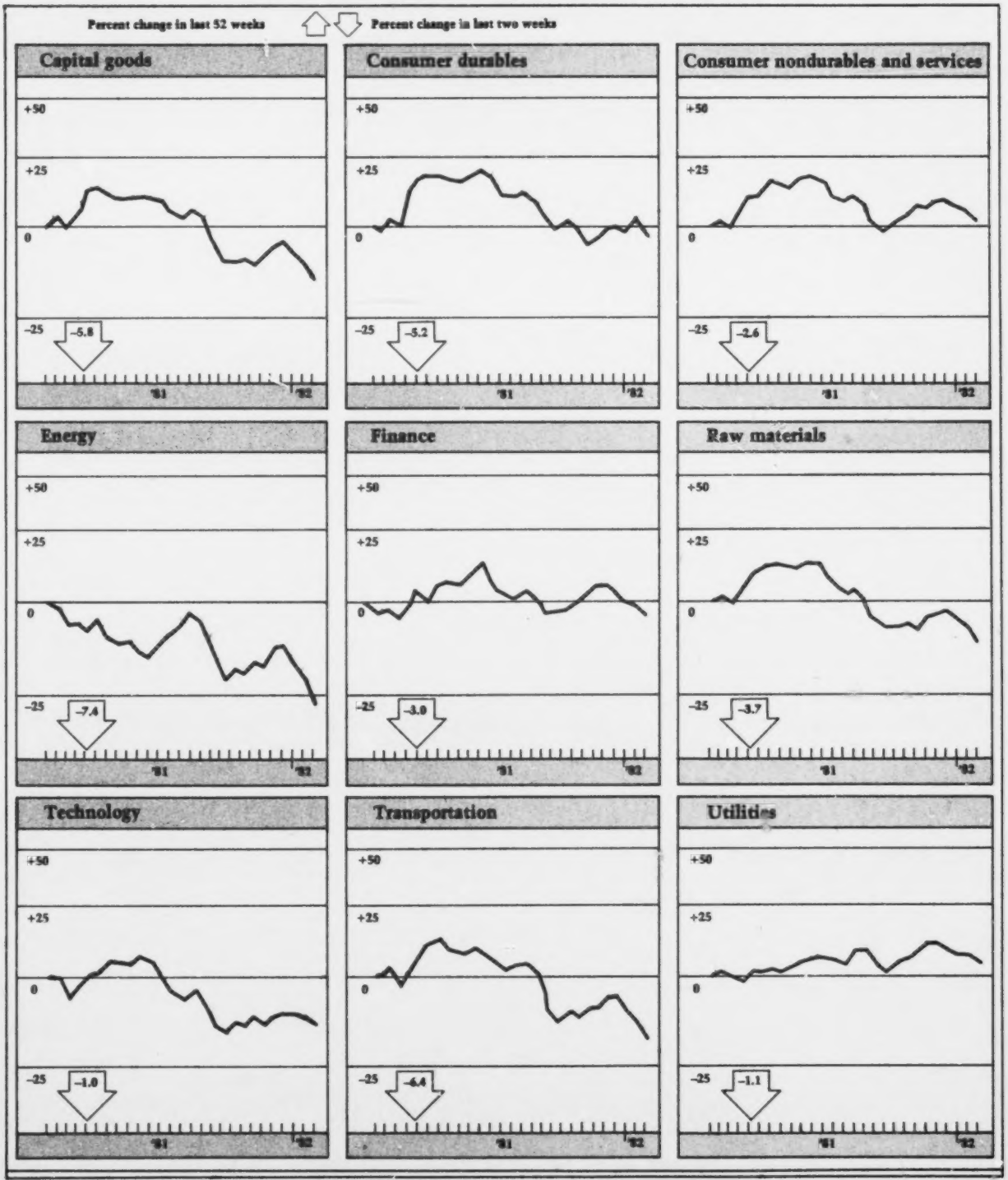
*A stock's sensitivity to overall market movement. High-volatility issues have wide price fluctuations; low-volatility issues are more stable.
†A quantitative evaluation of a stock's growth image, determined by Wilshire Associates.

Note: All data for periods ending 1/22/82. Prepared by Wilshire Associates, Santa Monica, Calif.

Hot opportunities in energy. Over the last two weeks all sectors took a beating, energy in particular. Not surprisingly, it is a bit hard to get excited over energy issues. After all, these stocks declined almost 30% in value over the last 52 weeks. But in times like these the contrarians start sniffing around for bargains.

Close behind the 7.4% decline of energy stocks was the transportation sector. It suffered a 6.4% setback. As air carriers release their fourth-quarter earnings reports, many investors are bailing out. A rash of bankruptcies of trucking firms is shaking shareholder confidence.

But look at technology stocks. After being at or close to the bottom of the heap for a good many weeks, this sector showed some strength. Even with a loss of 1% for the most recent reporting period, the technology sector outperformed the eight other groups.



Note: All data for periods ending 1/22/82. Prepared by Wilshire Associates, Santa Monica, Calif.

tional favorite. The pros had consistently held roughly 40% of all U.S. Home shares.

That's high for a company in a fragmented, cyclical industry, but U.S. Home had charisma: Guy R. Odom, its aggressive chief executive officer, could spellbind with tales of how the company's formula of buying construction sites in quantity and building residential market share just couldn't miss hitting the mark.

Now, however, the old excitement is gone. Last month the company reported its 1981 results. Revenues for the year were off by 9%, but profits were less than a quarter of 1980 levels. But the real shock was the fourth quarter. U.S. Home turned in a pretax loss of over $23 million, roughly 61 cents per share.

What with the general gloom in the housing market, U.S. Home's stock price had already slumped by some 60% in less than a year. When news of the fourth-quarter fiasco hit, however, shares slid another $1.75, to 10¼. "The stock could be headed for single digits," says Barbara Alexander, who follows the company and the housing industry for Smith Barney, Harris Upham. "U.S. Home cut its dividend in November, and it's very possible they'll have to do that again."

Like most analysts, Alexander was braced for some bad news—but not as much as U.S. Home parceled out. Unit deliveries were off 21% for the quarter, the average price was flat and operating revenues declined 30%. Beyond that, the company wrote down its investment in land and discontinued projects by $7.3 million. She estimates that excluding that special charge, the company lost $5,500 on every unit it sold.

In the second half of last year Odom belatedly began liquidating inventory. He also tried to tidy up his balance sheet in December by swapping $15.4 million in debt for stock. At year-end, however, U.S. Home still had almost $100 million in short-term debt and some $250 million in long-term debt. Its equity base is a slim $264 million.

There are also some off-balance-sheet obligations. An affiliate called Homecraft Land Development, Inc. has about $150 million worth of real estate under option. That financing company—20% owned by U.S. Home—has borrowed heavily. Although U.S. Home isn't legally obligated on Homecraft's total debt, the lenders would certainly expect the company to stand behind its projects—if only to maintain credibility.

Despite all of this, Alexander expects U.S. Home to be profitable in 1982. She is estimating $1.50 a share, down 50 cents from her earlier prediction of $2. But don't buy yet. "The stock should remain under pressure because there are a lot of disappointed investors waiting to get out on any rally," she explains.—**Howard Rudnitsky**

Airlines: rough skies or regional opportunity?

Fasten your seatbelts, turbulent skies still lie ahead for the airlines. Deregulation has created a free-for-all among the established carriers and enticed dozens of upstarts into the fray. Price wars have been sparked by the new competition, a recessionary economy and struggling carriers desperate to fill seats. While the public is profiting from cheap fares, most companies in the industry lost money for the second year in a row, and Braniff, Continental and Pan Am are flirting with bankruptcy.

Investors are queasy, too. Most airline stocks are trading at barely half their 1981 highs, and pessimism is as heavy as a flight-grounding fog. But in today's world all carriers aren't created equal. "Since these companies generally move together, some have been battered in the market more than they deserve," says John Pincavage, an analyst at Paine Webber. "It's like a raid-the-whorehouse routine where they take everybody—the good girls, the bad girls and the piano player."

The good girls of tomorrow are likely to be regional carriers. They have greater flexibility because of their size and nonunion labor. Regionals also serve out-of-the-way routes where they often have less competition and can thus exact higher fares. Frontier, Piedmont and Southwest, for example, show relatively healthy revenue per passenger mile.

Despite the industrywide stock slump, investors realize this. Piedmont, for example, is one of the few airlines that trades near the middle of its 1981 price range. Why? It's still scoring profit gains. Third-quarter net was up 18%. The real potential for investors, however, may lie in regionals with sound balance sheets that are suffering from the current market downdraft. Look at Southwest, one of the strongest carriers overall. It is now selling at 41.6% below its high, but earnings for 1982 are projected to increase to $4.25 per share. If the industry rebounds, the company's stock price could double.

As for trunk carriers—even healthy ones like Delta and Northwest—most experts advise caution. These high-volatility stocks are best used as trading vehicles and then only by investors with strong stomachs. "All the trunks are dinosaurs if they can't find a way to get cost structures in line," says Pincavage. "Braniff appears to be leading them to the tar pits."

Wall Street's disenchantment with flying probably won't end until the market senses that the silly season of unprofitable low fares is over. No one will go out on a limb to predict when that will happen, but Robert Joedicke of Lehman Brothers cautions that when the industry does take off the ride will be fast. "If you wait to establish a position, it may be too late," he warns. "You'll just chase them up the ramp."—**Paul Bornstein**

Flying in the black

The nine airlines below have positive 12-month earnings—a show of strength in a troubled industry. Even among the strong, however, there are levels of risk. Debt/equity ratios are good safety indicators: the lower the better.

Company	Recent price	52-week price range	Earnings per share latest 12 months	Earnings per share 1982 estimate*	Debt/equity
Alaska Airlines	5⅜	8¼– 3⅞	$1.81	$1.55	2.3
Delta Air Lines	23	41⅜–22⅞	3.21	2.50	0.1
Frontier Airlines	19⅜	28¼–16¼	3.88	3.55	0.8
Northwest Airlines	23¾	38⅜–22⅞	0.95	1.25	0.1
Ozark Air Lines	8¼	13⅜– 5⅝	2.20	2.20	2.6
Piedmont Aviation	24⅜	32⅛–15¼	4.24	3.90	1.7
Southwest Airlines	28¼	48⅜–23½	3.51	4.35	0.6
Trans World	14⅜	28⅜–13¾	1.93	3.50	2.0
US Air	10⅞	26⅛–10⅝	3.17	3.75	0.9

*The Value Line Investment Survey.

Hold on to your wallets. Here's everything you always wanted to know about inflation stock prices—but were afraid to ask.

Rough hedge

Statistical Spotlight

By Steve Kichen

WALL STREET was sitting pretty as investors rang in 1973. Double-digit inflation and gasoline lines were unknown and Detroit was firmly in the driver's seat. Hot institutional favorites sold at high multiples. Remember IBM at 37 times earnings, Coca-Cola at 47 or Eastman Kodak at 48?

That torrid love affair isn't what it used to be, and since then even worse rising price levels have eroded pre-OPEC equity investments dramatically. In the cold winter of 1982, the dollar is worth just 45% of its 1973 value. To put this in perspective, we decided to measure the real returns of stocks of 100 of the nation's largest companies.

Using computers at Wilshire Associates in Santa Monica, Calif., we developed total return figures that assume a quarterly reinvestment of dividends over this nine-year period. Then, to see how total returns stood up against rising price levels, we factored in the change in the Consumer Price Index and compared this inflation-adjusted figure to split-adjusted stock prices as of year-end 1972.

Sadly, these numbers say a great deal about why so much money is now locked up in real estate and collectibles. Remember Xerox as a superstar? It sold for $149.25 a share in 1972 and $40.50 at year-end 1981. The inflation-adjusted total return figure paints an even more dismal picture. The original investment is now worth only $23.44 in 1973 dollars. Yes, it's a little hard to salt away money for one's old age with a nine-year return of –84%. Former favorites such as Kodak, Ford and Coca-Cola suffered a similar fate.

Of course, not every big-name stock took you to the poorhouse. Cooper Industries, a manufacturer of compressors and other tools, shows an inflation-adjusted total return of 228%. Hughes Tool shot up 187%, while NL Industries rose almost 251%. Tandy gained an impressive 432%. And Teledyne, which hasn't paid a cash dividend in recent memory, shows a bottom-line return in excess of 700%.

Oils and energy-related stocks turned out to be reasonably sound investments despite the drubbing they took in 1981. Union Oil of California shows a real return of 139%; Pennzoil, 94%; Atlantic Richfield, 49%. While oils were prospering, however,

There's no return like a real return

Adjust the numbers to reflect price increases, and many stocks have been lousy investments since 1972. Column five gives the bad news.

Company	Price 12/31/72	Price 12/31/81	Inflation-adjusted price 12/31/81	Inflation-adjusted total return value	9-year real return
Abbott Laboratories	$ 8.75	$27.00	$12.24	$15.06	72.1%
Aetna Life & Casualty	24.38	44.00	19.95	30.74	26.1
Alum Co of Amer	17.71	25.63	11.62	16.63	–6.1
Amax	21.92	47.25	21.43	31.52	43.8
Amerada Hess	18.88	24.13	10.94	13.56	–28.2
American Brands	21.06	36.75	16.67	31.92	51.6
Amer Electric Power	30.00	16.25	7.37	18.58	–38.1
American Express	64.88	44.13	20.01	27.16	–58.1
Amer Home Products	40.67	36.50	16.55	23.55	–42.1
AT&T	52.75	58.75	26.64	52.97	0.4
Anheuser-Busch Cos	55.25	41.13	18.65	23.98	–56.6
Atlantic Richfield	19.44	46.88	21.26	28.97	49.0
Baker International	8.47	38.00	17.23	19.20	126.7
Baxter Travenol Labs	27.88	33.50	15.19	16.40	–41.2
Boeing	5.56	22.50	10.20	14.39	158.8
Bristol-Myers	34.50	53.13	24.09	32.18	–6.7
Burlington North Inds	24.75	53.63	24.32	33.33	34.7
Caterpillar Tractor	44.33	55.50	25.17	33.69	–24.0
Cities Service	15.53	46.00	20.86	32.81	111.3
Coca-Cola	74.25	34.75	15.76	30.71	–58.6
Commonwealth Ed	35.88	19.88	9.01	21.94	–38.9
Conn General Ins	37.06	50.00	22.67	29.03	–21.7
Consolidated Ed	25.00	32.50	14.74	34.44	37.8
Cooper Industries	9.25	51.50	23.36	30.32	227.8
Deere & Co	22.88	35.50	16.10	23.57	3.0
Digital Equipment	30.58	86.50	39.23	39.22	28.3
Dow Chemical	25.38	26.25	11.90	16.46	–35.1
Dresser Industries	11.69	33.25	15.08	18.56	58.8
El Du Pont	59.17	37.25	16.89	26.73	–54.8
Eastman Kodak	148.38	71.13	32.26	44.23	–70.2
Emerson Electric	45.63	45.38	20.58	26.95	–40.9
Exxon	21.88	31.25	14.17	25.95	18.6
Fluor	7.35	30.00	13.60	16.15	119.7
Ford Motor	63.70	16.75	7.60	14.44	–77.3
Gannett	25.67	36.13	16.38	21.06	–18.0
General Electric	72.88	57.38	26.02	38.18	–47.6
General Motors	81.13	38.50	17.46	35.51	–56.2
General Tel & Elec	30.13	32.00	14.51	29.31	–2.7
Georgia-Pacific	20.98	20.13	9.13	12.21	–41.8
Getty Oil	23.50	64.63	29.31	35.15	49.6

Company	Price 12/31/72	Price 12/31/81	Inflation-adjusted price 12/31/81	Inflation-adjusted total return value	9-year real return
WR Grace	$26.50	$45.75	$20.75	$36.11	36.3%
Gulf Oil	27.00	35.38	16.04	30.41	12.6
Halliburton	23.38	52.13	23.64	27.27	16.6
Hewlett-Packard	21.63	39.63	17.97	18.72	–13.5
Hughes Tool	7.10	40.13	18.20	20.38	187.0
IBM	80.40	56.88	25.79	36.43	–54.7
International Paper	41.88	39.13	17.74	26.47	–36.8
IT&T	60.25	29.75	13.49	25.01	–58.5
Johnson & Johnson	43.50	37.13	16.84	19.70	–54.7
K mart	48.88	15.75	7.14	8.59	–82.4
Kerr-McGee	32.94	37.38	16.95	20.25	–38.5
Eli Lilly	79.63	56.00	25.40	32.83	–58.8
Litton Industries	10.56	56.38	25.57	26.32	149.2
McDonald's	76.25	65.38	29.65	31.32	–58.9
Merck & Co	89.13	84.75	38.43	48.06	–46.1
Minn Mining & Mfg	85.63	54.50	24.72	32.94	–61.5
Mobil	18.50	24.13	10.94	19.22	3.9
Monsanto	49.63	70.13	31.80	49.46	–0.3
NL Industries	8.44	39.75	18.03	29.60	250.7
Occidental Pet	11.75	24.00	10.88	17.16	46.0
Pacific Gas & Elec	32.63	21.00	9.52	22.50	–31.0
JC Penney	90.38	28.63	12.98	18.68	–79.3
Pennzoil	17.83	48.00	21.77	34.52	93.6
PepsiCo	29.04	36.38	16.50	22.17	–23.7
Pfizer	42.88	53.25	24.15	31.93	–25.5
Philip Morris	29.56	48.75	22.11	28.16	–4.7
Phillips Petroleum	22.19	40.50	18.37	25.15	13.3
Procter & Gamble	111.50	80.38	36.45	48.81	–56.2
Raytheon	8.41	37.38	16.95	21.32	153.5
RJ Reynolds Inds	25.81	47.13	21.37	35.53	37.7
Rockwell Intl	16.19	32.75	14.85	26.72	65.0
Santa Fe Industries	11.08	21.13	9.58	15.66	41.3
Sears, Roebuck	58.00	16.13	7.31	11.06	–80.9
Shell Oil	13.72	44.00	19.95	30.17	119.9
SmithKline	14.60	67.63	30.67	55.88	282.7
Southern Calif Ed	27.75	28.75	13.04	30.17	8.7
Southern Co	20.13	12.00	5.44	14.26	–29.2
Standard Oil Calif	19.91	42.88	19.44	32.61	63.8
Standard Oil Ind	21.88	52.00	23.58	35.11	60.5
Standard Oil Ohio	11.55	41.50	18.82	23.49	103.4
Sun Co	17.75	45.50	20.63	30.41	71.3
Superior Oil	13.86	36.88	16.72	17.85	28.8
Tandy	2.88	33.75	15.31	15.33	432.3
Teledyne	7.84	138.50	62.81	62.80	701.1
Tenneco	29.00	33.50	15.19	27.17	–6.3
Texaco	37.50	33.00	14.97	29.11	–22.4
Texas Instruments	90.94	80.50	36.51	42.09	–53.7
Texas Oil & Gas	7.30	35.00	15.87	15.26	109.0
Texas Utilities	34.00	19.63	8.90	17.11	–49.7
Time Inc	15.81	38.25	17.35	24.93	57.7
Travelers	38.88	43.88	19.90	30.43	–21.7
Union Carbide	50.00	51.38	23.30	37.87	–24.3
Union Oil Calif	9.97	37.63	17.06	23.80	138.7
Union Pacific	17.25	52.00	23.58	32.18	86.6
United States Steel	20.33	29.88	13.55	22.24	9.4
United Technologies	22.25	41.75	18.93	29.77	33.8
Warner Comm	10.41	54.88	24.89	31.20	199.7
Westinghouse Elec	43.00	25.50	11.56	19.05	–55.7
Weyerhaeuser	28.19	29.00	13.15	16.91	–40.0
Xerox	149.25	40.50	18.37	23.44	–84.3

Source: Wilshire Associates

several of the nation's biggest retailers—Sears, Penney and K mart—proved to be poor bargains.

The total number of gainers to losers on our list was almost even—but that is a bit misleading. The average real return of the group was –23%. Looking back, yesterday's superstars were even more vulnerable than average or below-average companies with far less visibility. The fact that Xerox sold at a multiple of 48 was bound to attract lots of competition. And as more American and Japanese companies slugged it out in the photocopier market, prices were cut, margins were narrowed and opportunities for growth became more limited. Meanwhile, relatively booming industries like electronics and communications at least kept investors even with inflation.

On the other hand, suppose you weren't a stock market oriented person back in 1973 and decided instead to bet on bonds. Compounding of bond interest of a 6⅜% coupon 1982 U.S. Treasury from January 1973 would have returned $759.90 in nine years. Adjusting for the change in the bond's market price, that is a 75% return, 34% adjusted for inflation. A Ford 8⅛% coupon maturing in 1990 would show a nine-year inflation-adjusted return of 28%. Compared to the stocks on our list, these figures are mouth-watering.

What about hard assets? A sporty, metallic green BMW 2002 was going for $4,200 back then. Assuming you kept the car in good shape, it is still worth close to $4,000. After inflation you are behind 57%. But you have had the use of the car for nine years; even after gas and lube jobs, a return probably comparable with Xerox common.

A two-bedroom condominium in Phoenix, on the other hand, sold for $40,000 in 1973 and would probably fetch $100,000 today. That's a 13.4% real return. And it doesn't include any income that could have been generated by leasing out the unit.

Then there's gold. Even with its ups and downs, the metal was a solid investment during this period, showing a real return of 177%. Stocks like General Motors, Du Pont and International Paper didn't do as well.

Sure it's been a rough nine years for many stocks, but the tide could be shifting in their favor. The exchanges are loaded with bargain-priced issues, whereas real estate and collectibles are showing signs of peaking. So think before you leap into your next inflation hedge. The only sure thing is that what worked in the past will not always work in the future. ■